

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently amended) A method comprising: for
receiving media data, and
buffering the multimedia data in a buffer, the media data being included
in data transmission units, the data transmission units ordered in a transmission order which
is at least partly different from a decoding order of the media data in the data transmission
units, wherein a parameter is defined indicative of the maximum amount-number of data
transmission units comprising multimedia data that precede any data transmission unit
comprising multimedia data in a packet stream in transmission unit the transmission order
and follow the data transmission unit comprising multimedia data in the decoding order.
2. (Currently amended) The method according to claim 1, wherein said multimedia data
comprises a slice of an encoded picture.
3. (Currently amended) The method according to claim 1, wherein said transmission unit
comprising multimedia data is a video coding layer network abstraction layer VCL-NAL unit.
4. (Currently amended) A method, comprising for decoding
receiving an encoded picture stream, and
decoding in a decoder, in which the encoded picture stream in a decoder, wherein the
encoded picture stream is received as data transmission units comprising multimedia data,
the data transmission units having been ordered in a transmission order which is at least
partly different from a decoding order of the media data in the data transmission units,
wherein buffering of the data transmission units is performed, wherein the buffering
requirements are indicated to for said the decoding process as a parameter indicative of the a
maximum amount-number of data transmission units comprising multimedia data that
precede any data transmission unit comprising multimedia data in the encoded picture packet
stream in transmission unit transmission order and follow the data transmission unit
comprising multimedia data in the decoding order.
5. (Currently amended) A system comprising
an encoder for encoding pictures; and

a buffer for buffering media data, the media data being included in data transmission units, the data transmission units having been ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein a parameter is arranged to be defined indicative of the a maximum amount number of data transmission units comprising multimedia data that precede any data transmission unit comprising multimedia data in the packet stream in transmission unit transmission order and follow the data transmission unit comprising multimedia data in the decoding order.

6. (Currently amended) The system according to claim 5, further comprising wherein it comprises a decoder for decoding encoded pictures, and a memory module for buffering decoded pictures, wherein said parameter is arranged to be used for determining a required amount of memory places to be reserved from the memory for buffering decoded pictures.

7. (Currently Amended) The system according to claim 5, wherein said multimedia data comprises a slice of an encoded picture.

8. (Currently amended) The ~~method~~ system according to claim 5, wherein said data transmission unit ~~comprising multimedia data~~ is a VCL NAL video coding layer network abstraction layer unit.

9. (Currently amended) Apparatus, comprising:

an encoder responsive to a signal from a media source for providing an encoded media stream with media data encoded in transmission units, the data transmission units ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein said media stream is arranged to contain a parameter indicative of a maximum number of data transmission units that precede any data transmission unit in the media stream in transmission order and follow the data transmission unit in the decoding order; and

a transmitter/transmitting device, responsive to the encoded media stream, for transmitting the media stream/media data being included in said data transmission units over a transmission medium or to a storage medium, the data transmission units having been ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein a parameter is arranged to be defined indicative of the maximum amount number of data transmission units comprising multimedia data that precede any data transmission unit comprising multimedia data in the packet stream

~~in transmission unit transmission order and follow the data transmission unit comprising multimedia data in the decoding order.~~

10. (Currently amended) A receiving device for receiving an encoded picture stream as data transmission units comprising ~~slice-media data, the data transmission units having been~~ ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein a parameter is arranged to be used indicative of ~~the~~ a maximum amount-number of transmission units ~~comprising multimedia data that precede any~~ data transmission unit ~~comprising multimedia data in the packet picture~~ stream in ~~transmission unit-transmission order and follow the~~ data transmission unit ~~comprising multimedia data in~~ the decoding order.

11. (Currently amended) The receiving device according to claim 10, further comprising ~~wherein it comprises a memory module~~, and a definer for examining said parameter and for reserving memory places for buffering from said memory according to said parameter.

12. (Currently amended) The receiving device according to claim 11, ~~wherein it comprises~~ further comprising a decoder for decoding pictures from the received encoded picture stream, ~~and means wherein the receiving device is configured~~ for using the reserved memory places for buffering the encoded pictures.

13. (Currently amended) A computer program product including a computer readable storage medium embodying computer program code comprising machine executable steps for buffering media data of encoded pictures in a buffer, the media data being included in data transmission units, the data transmission units having been ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein the computer program ~~product~~ code further comprises machine executable steps for defining a parameter indicative of ~~the~~ a maximum amount-number of data transmission units ~~comprising multimedia data that precede any~~ data transmission unit ~~comprising multimedia data in the packet stream in transmission unit-transmission order and follow the~~ data transmission unit ~~comprising multimedia data in~~ the decoding order.

14. (Cancelled)

15. (Currently amended) A module for receiving an encoded picture stream as data transmission units comprising multimedia data, the data transmission units having been ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein a parameter is arranged to be used indicative of the a maximum amount number of data transmission units comprising multimedia data that precede any data transmission unit comprising multimedia data in the packet stream in transmission-unit transmission order and follow the data transmission unit comprising multimedia data in the decoding order.

16. (Currently amended) A method, comprising the steps of:

decoding ~~multimedia data~~ in transmission units in a stream received over a transmission channel, the transmission units ordered in a transmission order which is at least partly different from a decoding order thereof, and

buffering said ~~multimedia data~~ according to a parameter indicative of a maximum amount of data transmission units that precede and follow any transmission unit in the stream in transmission order and follow the data transmission unit in the decoding order.

17. (Currently amended) A system, comprising:

a transmitter for transmitting encoded pictures comprising media data in transmission units ordered in a transmission order which is at least partly different from a decoding order thereof and for which transmission units a parameter is defined indicative of a maximum amount of transmission units ~~comprising multimedia data~~ that precede any transmission unit ~~comprising multimedia data~~ in ~~transmission-unit transmission~~ order and follow the transmission unit ~~comprising multimedia data~~ in decoding order for transmission over a transmission channel; and

a receiver for receiving said encoded pictures for decoding said encoded pictures for buffering in a memory for storing decoded pictures in memory places reserved according to said parameter.

18. (Currently amended) Device comprising:

means for decoding ~~multimedia data~~ in transmission units in a stream received over a transmission channel, the transmission units ordered in a transmission order which is at least partly different from a decoding order thereof; and

means for buffering said ~~multimedia~~ data according to a parameter indicative of a maximum amount of data transmission units that precede ~~and follow~~ any transmission unit in the stream in transmission order and follow the data transmission unit in the decoding order.

19. (New) The method according to claim 1, wherein said media data comprises at least one of the following:

- video data,
- audio data.

20. (New) The method according to claim 4, wherein said parameter is examined, and memory places are reserved for buffering according to said parameter.

21. (New) The receiving device according to claim 11, wherein pictures are decoded from the received encoded picture stream, and encoded pictures are buffered using the reserved memory places.

22. (New) The apparatus according to claim 9, wherein said media data comprises a slice of an encoded picture.

23. (New) The apparatus according to claim 9, wherein said transmission units are video coding layer network abstraction layer units.

24. (New) A computer readable storage medium having a computer program stored thereon, said program embodying computer program code comprising machine executable steps for decoding an encoded picture stream, in which the encoded picture stream is received as transmission units comprising media data, and machine executable steps for buffering transmission units, wherein the computer program code comprises machine executable steps for determining buffering requirements for said decoding by using a parameter indicative of a maximum amount of transmission units comprising media data that precede any transmission unit in transmission order and follow the transmission unit in decoding order.

25. (New) A device for transmitting, comprising:

a processor for processing media data by defining a parameter indicative of a maximum amount of transmission units comprising media data that precede any transmission

unit comprising media data in a packet stream in transmission unit transmission order and follow the transmission unit comprising media data in decoding order; and
an output for transmitting said transmission units.

26. (New) The device for transmitting according to claim 25, wherein said media data comprises a slice of an encoded picture.

27. (New) The device for transmitting according to claim 25, wherein said transmission unit is a video coding layer network abstraction layer unit.

28. (New) A device for receiving, comprising:

an input for receiving an encoded picture stream data as transmission units comprising slice data; and

a processor for processing data of said transmission units, wherein the processor is configured for determining buffering requirements by using a parameter indicative of a maximum amount of transmission units that precede any transmission unit comprising in transmission unit transmission order and follow the transmission unit in decoding order.

29. (New) The device for receiving according to claim 28, further comprising a memory module coupled to said processor, said processor for examining said parameter and for reserving memory places for buffering use of said memory according to said parameter.

30. (New) The device for receiving according to claim 29, for decoding pictures from the received encoded picture stream, wherein the processor is configured for using the reserved memory places for buffering the encoded pictures.

31. (New) An encoder for encoding media data included in data transmission units, the data transmission units ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein the encoder comprises a processor coupled to a memory, said processor together with said memory configured to define a parameter indicative of a maximum number of data transmission units that precede any data transmission unit in the packet stream in transmission order and follow the data transmission unit in the decoding order.

32. (New) The encoder according to claim 31, wherein said media data comprises a slice of an encoded picture.
33. (New) The encoder according to claim 31, wherein said transmission unit is a video coding layer network abstraction layer unit.
34. (New) A decoder for decoding an encoded picture stream included in data transmission units comprising media data, the data transmission units ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units, wherein the decoder is configured to determine buffering requirements by using a parameter indicative of a maximum number of transmission units that precede any data transmission unit in the picture stream in transmission order and follow the data transmission unit in the decoding order.
35. (New) The decoder according to claim 34, further comprising a memory module and a processor configured to examine said parameter and to reserve memory places of said memory module according to said parameter.
36. (New) The decoder according to claim 35, configured to use the reserved memory places for buffering pictures of the picture stream.